[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 36

Docket No.: FAA-2012-0948; Amdt. No. 36-29

RIN 2120–AJ96

Stage 3 Helicopter Noise Certification Standards

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This rulemaking adopts more stringent noise certification standards for helicopters that are certificated in the United States (U.S.). This rule applies to applications for a new helicopter type design. It also allows applicants to upgrade Stage 1 and Stage 2 helicopters to Stage 3 when applying for a supplemental type certificate. A helicopter type certificated under this standard is designated as a Stage 3 helicopter. This rule adopts the same noise certification standards for helicopters that exist in the standards of the International Civil Aviation Organization (ICAO). These more stringent noise certification standards adopted into U.S. regulations will reduce noise exposure from helicopters certificated in the United Stated and are consistent with the FAA's goal of harmonizing U.S. regulations with international standards.

DATES: Effective [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For information on where to obtain copies of rulemaking documents and other information related to this final rule, see "How To Obtain Additional Information" in the SUPPLEMENTARY INFORMATION section of this document.

FOR FURTHER INFORMATION CONTACT: For technical questions concerning this action, contact Sandy Liu, AEE-100, Office of Environment and Energy, Federal Aviation Administration, 800 Independence Avenue, S.W., Washington, DC 20591; telephone: (202) 493-4864; facsimile (202) 267-5594; email: sandy.liu@faa.gov.

For legal questions concerning this action, contact Karen Petronis, AGC-210, Office of the Chief Counsel, International Law, Legislation and Regulations Division, Federal Aviation Administration, 800 Independence Avenue, S.W., Washington, DC 20591; telephone: (202) 267-3073; e-mail: karen.petronis@faa.gov.

SUPPLEMENTARY INFORMATION:

Authority for this Rulemaking

The FAA's authority to issue rules on aviation safety is found in Title 49 of the United States Code. Subtitle I, Section 106 describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority.

This rulemaking is promulgated under the authority described in Subtitle VII, Part A, Subpart III, Section 44715, Controlling aircraft noise and sonic boom. Under that section, the FAA is charged with prescribing regulations to measure and abate aircraft noise. This regulation is within the scope of that authority since it establishes new noise certification standards for helicopters that are applicable to new type designs.

Overview of Final Rule

This final rule adopts noise standards for helicopters that are to be type certificated in the United States. The standards apply to applications for a new type certificate, and subsequent changes to a type certificate for which application is made after the effective date of this rule. These regulations incorporate the same noise certification standards for helicopters that exist in Annex 16, Volume 1, Chapter 8 and Chapter 11 (Amendment 7) in the standards of International Civil Aviation Organization (ICAO). This action is consistent with the FAA goals of reducing exposure to helicopter noise and of harmonizing U.S. regulations with international standards.

Background

ICAO Noise Certification Standards

The ICAO is the international body with the responsibility for the development of international standards under the Convention on International Civil Aviation (the Chicago Convention). Consistent with their obligations under the Chicago Convention, Contracting States (including the United States) agree to implement ICAO standards in their national regulations to the extent practicable. The standards for aircraft noise are contained in ICAO Annex 16, Environmental Protection, Volume 1, Aircraft Noise.

In 1997, ICAO's Committee on Aviation Environmental Protection (CAEP) chartered the Rotorcraft Task Group (RTG) to study potential increases in the stringency of noise certification standards for helicopters. The FAA participated in the RTG from 1997 to 2000. By the fifth session of CAEP in 2001, more stringent noise standards for helicopters had been defined. These standards lowered noise limits for new helicopter types while using the same helicopter noise certification test procedures that the United

States had incorporated into Title 14 of the Code of the Federal Regulations (CFR) part 36, Appendices H and J.

On June 29, 2001, CAEP's proposed noise stringency increases were adopted by the ICAO Council for incorporation into Annex 16, Volume 1, Chapters 8 and 11 (Amendment 7). The ICAO guidelines became effective on October 29, 2001, with an applicability date of March 21, 2002.

Statement of the Problem

Although ICAO adopted increased noise stringency standards for helicopters in 2002, the United States did not adopt these standards into part 36. Since that time, there has been heightened public awareness of helicopter noise in the United States, and the FAA has determined that the public will benefit from adoption of these more stringent standards. The FAA's adoption of these certification standards into part 36, including Appendices H and J, will also satisfy the goal of harmonizing U.S. regulations with international standards. This rulemaking adopts the same noise certification standards for helicopters that exist in ICAO Annex 16, Volume 1, Chapters 8 and 11 (Amendment 7).

History of U.S. Helicopter Noise Regulations

In 1973, the FAA published an advanced notice of proposed rulemaking (ANPRM) (38 FR 35487, December 28, 1973) requesting comments on the development of standards for aircraft with efficient short stage length operations. This class of aircraft, referred to as "short-haul", included aircraft with short, reduced, vertical, or near vertical takeoff and landing capabilities, and included helicopters. At the time of the ANPRM, U.S. noise regulations in part 36 did not include any noise certification regulations applicable to short-haul aircraft.

The ANPRM invited public participation to aid in the identification and development of standards for this separate class of short-haul aircraft for relief and protection to the public health and welfare from all aircraft noise. Following receipt of comments, the FAA issued a notice of proposed rulemaking (NPRM) (44 FR 42410, July 9, 1979) that focused on helicopter noise certification standards and limits on further production of older, noisier helicopter types. Comments to the NPRM indicated that there was no noise abatement technology available at the time that could meet the noise levels proposed in the NPRM. The FAA withdrew the NPRM in 1981 (Notice No. 79-13, 46 FR 61486, December 17, 1981).

In 1982, the National Aeronautics and Space Administration (NASA), the FAA, and American helicopter manufacturers set up an accelerated joint research program to develop helicopter noise abatement technology. This cooperative, $20-million, multi-year program was established to reduce helicopter external noise, and develop noise prediction tools that could significantly lower the costs of applying the technology. The FAA also continued to study the issues of noise certification of helicopters in collaboration with ICAO's noise working group. On March 6, 1986, the FAA issued an NPRM (Notice No. 86-3, 51 FR 7878) that proposed helicopter certification standards that were more consistent with then-current technology, and testing procedures similar to those adopted in ICAO Annex 16.

On February 5, 1988, the FAA adopted the first U.S. helicopter noise certification regulations as an amendment to part 36. These regulations set limits on noise emissions for new helicopter type designs. Helicopters that did not meet the newly established limits or had never been noise tested were designated as Stage 1. Stage 2 helicopters

were those that met the new certification standards as defined by the noise limits and test procedures. The new certification standards applied to the issuance of original and amended type certificates for helicopters. In addition, the regulations prohibited changes in the type design of helicopters that might increase their noise levels beyond certain limits. These regulations were substantially similar to the standards adopted in ICAO Annex 16, but included additional test conditions for engine thrust or power.

This rulemaking adopts more stringent noise levels consistent with the most recent international noise standards for helicopters and designates compliant designs as Stage 3. These standards apply to all applications for a new helicopter type design submitted on and after the effective date of the final rule. This rule is consistent with the effort of the fifth session of CAEP (2001) and its approval of the ICAO standards for helicopter noise in Annex 16, Chapters 8 and 11.

Summary of the NPRM

The FAA published an NPRM on September 18, 2012 (77 FR 57524) that proposed changes to part 36 that would establish more stringent noise limits for helicopters to be type certificated in the United States. The lowered helicopter noise limits are identical to the standards adopted in ICAO Annex 16, Volume 1, Chapter 8 and Chapter 11 (Amendment 7), and harmonize the U.S. regulations with those international standards. For helicopters certificated under Appendix H to part 36, the reduction in the noise limits are -4 EPNdB for flyover, -3 EPNdB for takeoff and -1 EPNdB for approach conditions. For helicopters certificated under Appendix J to part 36, the reduction in the noise limit is -2.5 dB SEL for flyover condition, with the constant lower limit, 82 dB SEL, extending to 3,125 pounds maximum takeoff weight.

Discussion of Public Comments

The comment period for the NPRM closed on November 19, 2012. Four commenters submitted comments to the docket: Bell Helicopter Textron Company (Bell), Sikorsky Aircraft Corporation (Sikorsky), the Helicopter Association International (HAI) and an individual.

Bell and Sikorsky noted an inconsistency between the proposed rule and Annex 16 standards that would result in different noise calculations.

Current § H36.305 uses a value of 3.01 dB and § J36.305 uses a value of 3.0 dB to compute noise limits. The FAA proposed a calculation value of 3.01 dB for both. That value was derived from the noise limit equations in the FAA's 2001 Advisory Circular 36-1H. In 2004, the FAA intended to change the value to 3.0 dB in both Appendices H and J, but only Appendix J was changed in a final rule harmonizing the noise certification regulations for helicopters (69 FR 31226, June 2, 2004).

Bell and Sikorsky each identified this inconsistency in the NPRM for calculation value used to compute the noise limits. Both commenters recommended that the FAA adopt the ICAO harmonized value of 3.0 dB per halving of weight (rather than the 3.01 dB per halving of the weight as proposed) in order to harmonize part 36 with the ICAO Annex 16 standard.

While the goal of harmonization exists, we are unable to change the 3.01 historical value of Appendix H because it would alter the certification basis of several helicopters. Accordingly, this final rule adopts the 3.0 dB value for the newly adopted Stage 3 standard in both Appendices H and J. The values for Stage 2 remain unchanged.

The FAA will also update Advisory Circular (AC) AC 36-1 to reflect the values adopted in this rule for Stage 3 certification.

Bell and Sikorsky also suggested that the FAA rewrite proposed § 36.11 for Stage 2 helicopter acoustical change. Each found that the proposed language did not clearly convey that the rule contains an option for certification applicants to certify to Stage 3 when applying for a supplemental type certificate for a Stage 1 or Stage 2 helicopter. Prior to this rule, Stage 2 was the quietest noise certification available for new or supplemental type certificates. Since new type designs must meet Stage 3 noise levels, this rule provides the option to upgrade a helicopter to Stage 3 as part of an application for a supplemental type certificate. Such voluntary recertification to Stage 3 requires that the helicopter remain Stage 3 thereafter.

Bell and Sikorsky suggested that the voluntary option is best reflected by using the term “may” rather than “must” in the rule text since the applicant is making the choice. The FAA agrees that the language could be clearer, but disagrees with the suggested change. The introductory text of § 36.11 has been changed to more clearly reflect that applicants have a choice when applying for a supplemental type certificate.

Bell noted that the FAA did not propose an update of the maximum normal operating revolutions per minute (RPM) that would include the current ICAO terminology regarding reference rotor speed. Bell indicted that it should be included.

The FAA agrees. This change was overlooked in § 36.1(h)(7). Since one of the goals of this rulemaking was harmonizing with the ICAO standard, the change is within the scope of this rulemaking.

The HAI supports the proposed rule and states that it is good for the long term growth of the industry. No changes were made based on this comment.

An individual commenter expressed frustration regarding the amount of noise made by airplanes and helicopters in general. This comment is not relevant to this rulemaking and no changes were made based on its content.

Changes Adopted in This Final Rule

This final rule incorporates the following changes from the NPRM:

The FAA is adopting a noise limit calculation value of 3.0 for Stage 3 in § H36.305 and in § J36.305.

The FAA has redrafted the introductory text of § 36.11 to more clearly convey that applicants have an option to certificate to a more stringent Stage 3 standard.

The FAA is amending in § 36.1(h)(7) on reference rotor speed by adopting the term "reference flight condition," to be consistent with ICAO Annex 16 standards.

The incorporation of these changes more fully harmonizes U.S. regulations with the ICAO noise standards for helicopters.

Regulatory Notices and Analyses

Regulatory Evaluation

Changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 and 13563 direct that each Federal agency shall propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 (Pub. L. 96-354) requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (Pub. L 96-39) prohibits agencies from setting

standards that create unnecessary obstacles to the foreign commerce of the United States. In developing U.S. standards, the Trade Act requires agencies to consider international standards and, where appropriate, that they be the basis of U.S. standards. Fourth, the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4) requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of $100 million or more annually (adjusted for inflation with base year of 1995). This portion of the preamble summarizes the FAA's analysis of the economic impacts of this final rule.

Department of Transportation (DOT) Order DOT 2100.5 prescribes policies and procedures for simplification, analysis, and review of regulations. If the expected cost impact is so minimal that a proposed or final rule does not warrant a full evaluation, this order permits that a statement to that effect and the basis for it be included in the preamble if a full regulatory evaluation of the cost and benefits is not prepared. Such a determination has been made for this final rule. The reasoning for this determination follows.

This final rule:

(1) Imposes no incremental costs and provides benefits;

(2) Is not an economically "significant regulatory action" as defined in section 3(f) of Executive Order 12866;

(3) Is not significant as defined in DOT's Regulatory Policies and Procedures;

(4) Will not have a significant economic impact on a substantial number of small entities;

(5) Will not create unnecessary obstacles to the foreign commerce of the United States; and

(6) Will not impose an unfunded mandate on state, local, or tribal governments, or on the private sector by exceeding the monetary threshold identified.

These analyses are summarized below.

Currently, the United States does not have a noise certification standard for Stage 3 helicopters in 14 CFR part 36. Part 36 includes only noise certification standards for Stage 1 and Stage 2 helicopters. There are more stringent international noise standards for helicopters in ICAO Annex 16, Environmental Protection, Volume 1, Aircraft Noise, Chapter 8 and Chapter 11 (Amendment 7). This final rule includes amendments to the part 36 certification requirements that will require more stringent noise limits and allow new helicopter type designs to be designated Stage 3. This final rule will allow a helicopter that meets the ICAO standards to be classified as a Stage 3 helicopter in the United States, and will also apply to new helicopter type certifications submitted after the effective date of this final rule.

This final rule has two major benefits. This final rule will result in quieter helicopter operations for those models type certificated under these standards. This final rule will also make it easier to sell U.S. Stage 3 helicopters outside the United States because the noise standards will be the same as those in ICAO Annex 16, Volume 1, Chapter 8 and 11 standards.

Given the complexity and expense in developing new helicopter models, the FAA estimates that applications for two new helicopter type designs will be submitted in the

next 10 year period; this would mirror the development of helicopter type designs in the last decade.

This final rule is not expected to result in additional costs. The U.S. testing procedures for helicopter noise certification already exist and will not change when certificating a helicopter to Stage 3 standards. Further, these standards are not retroactive. This final rule does not include any requirements to modify existing Stage 1 and Stage 2 helicopters. Therefore, there will be no incremental costs for certificating a helicopter to Stage 3 standards.

Although the FAA cannot quantify the benefits of this final rule, this rule will provide for quieter future helicopter models, will be consistent with international standards, and will not increase the cost of certification or noise testing. Thus the FAA finds that the benefits exceed the costs of the final rule.

In the NPRM, the FAA stated that the expected outcome would be a minimal impact with positive net benefits, and a full regulatory evaluation was not prepared. The FAA received no comments on that minimal cost determination.

Therefore, the FAA has determined that this final rule has benefits which exceed costs and is not a ‘‘significant regulatory action’’ as defined in section 3(f) of Executive Order 12866, and is not ‘‘significant’’ as defined in DOT’s Regulatory Policies and Procedures.

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (RFA) establishes “as a principle of regulatory issuance that agencies shall endeavor, consistent with the objective of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of

the business, organizations, and governmental jurisdictions subject to regulation." To achieve that principle, the RFA requires agencies to solicit and consider flexible regulatory proposals and to explain the rationale for their actions. The RFA covers a wide-range of small entities, including small businesses, not-for-profit organizations and small governmental jurisdictions.

Agencies must perform a review to determine whether a proposed or final rule will have a significant economic impact on a substantial number of small entities. If the agency determines that it will, the agency must prepare a regulatory flexibility analysis as described in the Act.

However, if an agency determines that a proposed or final rule is not expected to have a significant economic impact on a substantial number of small entities, section 605(b) of the 1980 RFA provides that the head of the agency may so certify and a regulatory flexibility analysis is not required. The certification must include a statement providing the factual basis for this determination, and the reasoning should be clear.

Helicopter Manufacturers

Size standards for small entities are published by the Small Business Administration (SBA) on its website at http://www.sba.gov/size. The size standards used herein are from "SBA U.S. Small Business Administration, Table of Small Business Size Standards, Matched to North American Industry Classification System Codes". Aircraft manufacturer size standards are listed in the above table of small business size standards under Sector 31-33-Manufacturing; Subsector 336-Transportation Equipment Manufacturing; NAICS Code 336411-Aircraft Manufacturing. The small entity size standard is 1,500 employees.

American helicopter manufacturers range in size from several hundred employees to thousands of employees. Therefore, some American helicopter manufacturers are small entities. However, this final rule will not have a significant economic impact on any small entity because the final rule imposes no incremental costs.

The FAA received no comments on this RFA determination that was part of the proposed rule when it was published.

If an agency determines that a rulemaking will not result in a significant economic impact on a substantial number of small entities, the head of the agency may so certify under section 605(b) of the RFA. Therefore, as provided in section 605(b), the head of the FAA certifies that this rulemaking will not result in a significant economic impact on a substantial number of small entities.

International Trade Impact Assessment

The Trade Agreements Act of 1979 (Pub. L. 96-39), as amended by the Uruguay Round Agreements Act (Pub. L. 103-465), prohibits Federal agencies from establishing standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Pursuant to these Acts, the establishment of standards is not considered an unnecessary obstacle to the foreign commerce of the United States, so long as the standard has a legitimate domestic objective, such as the protection of safety, and does not operate in a manner that excludes imports that meet this objective. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards.

The FAA assessed the potential effect of the proposed rule in the NPRM and determined that it would encourage international trade by adopting the same standards for Stage 3 helicopters in U.S. regulations that have been adopted by the ICAO.

The FAA received no comments on this determination. Therefore, the FAA determines that this final rule will encourage international trade by adopting the same noise standards for Stage 3 helicopters.

Unfunded Mandates Assessment

Title II of the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4) requires each Federal agency to prepare a written statement assessing the effects of any Federal mandate in a proposed or final agency rule that may result in an expenditure of $100 million or more (adjusted annually for inflation) in any one year by State, local, and tribal governments, in the aggregate, or by the private sector; such a mandate is deemed to be a "significant regulatory action." The FAA currently uses an inflation-adjusted value of $151.0 million in lieu of $100 million.

This final rule does not contain such a mandate. Therefore, the requirements of Title II do not apply.

Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)) requires that the FAA consider the impact of paperwork and other information collection burdens imposed on the public. The FAA has determined that there is no new requirement for information collection associated with this final rule.

International Compatibility and Cooperation

In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to conform to International Civil Aviation Organization (ICAO) Standards and Recommended Practices to the maximum extent practicable. In 2001, ICAO adopted stringent helicopter noise standards. This regulation harmonizes U.S. noise standards with the international standards by adopting the same requirements, adapted for U.S. regulatory format.

Executive Order (EO) 13609, Promoting International Regulatory Cooperation, (77 FR 26413, May 4, 2012) promotes international regulatory cooperation to meet shared challenges involving health, safety, labor, security, environmental, and other issues and reduce, eliminate, or prevent unnecessary differences in regulatory requirements. The FAA has analyzed this action under the policy and agency responsibilities of Executive Order 13609, Promoting International Regulatory Cooperation. The agency has determined that this action would eliminate differences between U.S. aviation standards and those of other civil aviation authorities by adopting international standards, adapted for U.S. regulatory format.

Environmental Analysis

FAA Order 1050.1E identifies FAA actions that are categorically excluded from preparation of an environmental assessment or environmental impact statement under the National Environmental Policy Act (NEPA) in the absence of extraordinary circumstances. This rule adopts the same noise certification standards for helicopters adopted by ICAO. This rule promulgates these noise limits to control the maximum noise levels of newly certificated helicopters. The FAA finds the applicability of these stricter noise standards to be environmentally consistent with available technology. The

adoption of more stringent noise standards requires new type certificated helicopters in the U.S. to comply with lower noise levels, thus offering increased environmental protection.

The FAA has determined this rulemaking action qualifies for the categorical exclusion identified in paragraph 312f of NEPA and involves no extraordinary circumstances.

Executive Order Determinations

Executive Order 13132, Federalism

The FAA has analyzed this final rule under the principles and criteria of Executive Order 13132, Federalism. The agency determined that this action will not have a substantial direct effect on the States, or the relationship between the Federal Government and the States, or on the distribution of power and responsibilities among the various levels of government, and, therefore, does not have Federalism implications.

Executive Order 13211, Regulations that Significantly Affect Energy Supply, Distribution, or Use

The FAA analyzed this final rule under Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use (May 18, 2001). The agency has determined that it is not a "significant energy action" under the executive order and it is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

How To Obtain Additional Information

Rulemaking Documents

An electronic copy of a rulemaking document may be obtained by using the Internet —

1. Search the Federal eRulemaking Portal (http://www.regulations.gov);
2. Visit the FAA's Regulations and Policies Web page at http://www.faa.gov/regulations_policies/ or
3. Access the Government Printing Office's Web page at http://www.gpo.gov/fdsys/.

Copies may also be obtained by sending a request (identified by notice, amendment, or docket number of this rulemaking) to the Federal Aviation Administration, Office of Rulemaking, ARM-1, 800 Independence Avenue S.W., Washington, DC 20591, or by calling (202) 267-9680.

Comments Submitted to the Docket

Comments received may be viewed by going to http://www.regulations.gov and following the online instructions to search the docket number for this action. Anyone is able to search the electronic form of all comments received into any of the FAA's dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.).

Small Business Regulatory Enforcement Fairness Act

The Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 requires FAA to comply with small entity requests for information or advice about compliance with statutes and regulations within its jurisdiction. A small entity with questions regarding this document, may contact its local FAA official, or the person listed under the FOR FURTHER INFORMATION CONTACT heading at the beginning

of the preamble. To find out more about SBREFA on the Internet, visit http://www.faa.gov/regulations_policies/rulemaking/sbre_act/.

List of Subjects in 14 CFR Part 36

Aircraft, Noise Control.

The Amendment

In consideration of the foregoing, the Federal Aviation Administration amends chapter I of title 14, Code of Federal Regulations as follows:

PART 36 —NOISE STANDARDS: AIRCRAFT TYPE AND AIRWORTHINESS CERTIFICATION

1. The authority citation for part 36 continues to read as follows:

Authority: 42 U.S.C. 4321 et seq.; 49 U.S.C. 106(g), 40113, 44701-44702, 44704, 44715; sec. 305, Pub. L. 96-193, 94 Stat. 50, 57; E.O. 11514, 35 FR 4247, 3 CFR, 1966-1970 Comp., p. 902.

2. Amend § 36.1 as follows:

A. Redesignate paragraph (h)(5) as (h)(7).

B. Add new paragraph (h)(5);

C. Add new paragraph (h)(6);.

D. Revise newly redesignated paragraph (h)(7).

The additions and revision read as follows:

§ 36.1 Applicability and definitions.

* * * * *

(h) * * *

(5) A “Stage 3 noise level” means a takeoff, flyover, or approach noise level at or below the Stage 3 noise limits prescribed in section H36.305 of appendix H of this part, or a flyover noise level at or below the Stage 3 noise limit prescribed in section J36.305 of appendix J of this part.

(6) A “Stage 3 helicopter” means a helicopter that has been shown under this part to comply with the Stage 3 noise limits (including applicable tradeoffs) prescribed in section H36.305 of appendix H of this part, or a helicopter that has been shown under this part to comply with the Stage 3 noise limit prescribed in section J36.305 of appendix J of this part.

(7) *Maximum normal operating RPM* means the highest rotor speed corresponding to the airworthiness limit imposed by the manufacturer and approved by the FAA. Where a tolerance on the highest rotor speed is specified, the maximum normal operating rotor speed is the highest rotor speed for which that tolerance is given. If the rotor speed is automatically linked with flight condition, the maximum normal operating rotor speed corresponding with the reference flight condition must be used during the noise certification procedure. If rotor speed can be changed by pilot action, the highest normal operating rotor speed specified in the flight manual limitation section for reference conditions must be used during the noise certification procedure.

* * * * *

3. Amend § 36.11 by revising paragraph (c) and adding paragraph (d) to read as follows:

§ 36.11 Acoustical change: Helicopters.

* * * * *

(c) *Stage 2 helicopters.* For each helicopter that is Stage 2 prior to a change in type design, after a change in type design the helicopter must either:

(1) Remain a Stage 2 helicopter; or

(2) Comply with Stage 3 requirements and remain a Stage 3 helicopter thereafter.

(d) *Stage 3 helicopters.* For a helicopter that is a Stage 3 helicopter prior to a change in type design, the helicopter must remain a Stage 3 helicopter after a change in type design.

4. Amend § 36.805 by revising paragraphs (b)(1) and (2) to read as follows:

§ 36.805 Noise limits.

* * * * *

(b) * * *

(1) When an application for issuance of a type certificate in the primary, normal, transport, or restricted category is made on and after March 6, 1986 and before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], that the noise levels of the helicopter are no greater than the Stage 2 noise limits prescribed in either section H36.305 of appendix H of this part or section J36.305 of appendix J of this part, as applicable; or

(2) When an application for issuance of a type certificate in the primary, normal, transport, or restricted category is made on or after [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], that the noise levels of the helicopter are no greater than the Stage 3 noise limits prescribed in either section

H36.305 of appendix H of this part, or section J36.305 of appendix J of this part, as applicable.

* * * * *

5. In Appendix H to part 36 in section H36.305:

   A. Revise paragraph (a) introductory text;

   B. Add paragraph (a)(3).

The additions and revisions read as follows:

Appendix H to Part 36 – Noise Requirements for Helicopters under Subpart H

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Section H36.305 * * *

(a) Limits. For compliance with this appendix, the applicant must show by flight test that the calculated noise levels of the helicopter, at the measuring points described in section H36.305(a) of this appendix, do not exceed the following, (with appropriate interpolation between weights):

* * * * *

(3) Stage 3 noise limits are as follows:

(i) For takeoff —For a helicopter having a maximum certificated takeoff weight of 176,370 pounds (80,000 kg) or more, the noise limit is 106 EPNdB, which decreases linearly with the logarithm of the helicopter weight (mass) at a rate of 3.0 EPNdB per halving of the weight (mass) down to 86 EPNdB, after which the limit is constant.

(ii) For flyover — For a helicopter having a maximum certificated takeoff weight of 176,370 pounds (80,000 kg) or more, the noise limit is 104 EPNdB, which decreases

linearly with the logarithm of the helicopter weight (mass) at a rate of 3.0 EPNdB per halving of the weight (mass) down to 84 EPNdB, after which the limit is constant.

(iii) For approach — For a helicopter having a maximum certificated takeoff weight of 176,370 pounds (80,000 kg) or more, the noise limit is 109 EPNdB, which decreases linearly with the logarithm of the helicopter weight (mass) at a rate of 3.0 EPNdB per halving of the weight (mass) down to 89 EPNdB, after which the limit is constant.

* * * * *

6. Amend Appendix J of part 36 by revising section J36.305 paragraph (a) to read as follows:

Appendix J to Part 36 – Alternative Noise Certification Procedure for Helicopters Under Subpart H Having a Maximum Certificated Takeoff Weight of Not More Than 7,000 Pounds

* * * * *

Section J36.305 * * *

(a) For primary, normal, transport, and restricted category helicopters having a maximum certificated takeoff weight of not more than 7,000 pounds that are noise tested under this appendix:

(1) Stage 2 noise limit is constant at 82 decibels SEL for helicopters up to 1,737 pounds (787 kg) maximum certificated takeoff weight (mass) and increases linearly with the logarithm of the helicopter weight at a rate of 3.0 decibels SEL per the doubling of weight thereafter. The limit may be calculated by the equation:

$$L_{AE}(\text{limit}) = 82 + 3.0\ [\log_{10}(\text{MTOW}/1737)/\log_{10}(2)]\ \text{dB},$$

where MTOW is the maximum takeoff weight, in pounds, for which certification under this appendix is requested.

(2) Stage 3 noise limit is constant at 82 decibels SEL for helicopters up to 3,125 pounds (1,417 kg) maximum certificated takeoff weight (mass) and increases linearly with the logarithm of the helicopter weight at a rate of 3.0 decibels SEL per the doubling of weight thereafter. The limit may be calculated using the equation:

$$L_{AE}(\text{limit}) = 82 + 3.0\ [\log10(\text{MTOW}/3125)/\log10(2)]\ \text{dB},$$

where MTOW is the maximum takeoff weight, in pounds.

* * * * *

Issued in Washington, DC, on February 20, 2014.

Michael P. Huerta
Administrator

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